

ABSTRACT

A method used for the compensation of vignetting in digital cameras has been achieved. The compensation for vignetting is performed by multiplying pixel output of the sensor array with a correction factor. In a preferred embodiment of the invention all pixels are multiplied with an adequate correction factor. Alternatively pixels, being close to the center of the sensor array, can be left unchanged. Said correction factor can be calculated in a very fast and efficient way by using two constant factors describing the specific geometry of the lens/sensor array system and by multiplying a first of said factors with the square of the distance between a pixel and the center of the sensor array and by multiplying a second of said factors with the distance between a pixel and the center of the sensor array to the power of four. The result of the second multiplication is subtracted from the result of the first multiplication and this result is added to one to get the final correction factor. Each original pixel output is multiplied with said correction factor to get output data compensated for the vignetting effects of the lens.